7

- a sensor having an optical sensing portion and an aperture therein, the optical sensing portion configured to sense at least a portion of the optical signal that does not pass through the aperture;
- an optical isolator coupled to the sensor in the path of the optical signal, wherein the optical isolator is a linear polarizer having a quarter-wave plate coupled thereto; and
- a detection element located adjacent to the optical isolator 10 in the path of the optical signal
- wherein the sensor is configured to produce a sensed signal by sensing the at least a portion of the optical signal that does not pass through the aperture with the optical sensing portion
- wherein the sensor is configured to transmit the sensed signal to the optical energy source and the optical energy source is configured to receive the sensed signal and use the sensed signal to control the power level of the optical signal.
- 10. The system of claim 9, wherein the aperture is circular in shape and the optical sensing portion surrounds at least a portion of the perimeter of the aperture, wherein the optical sensing portion surrounding at least a portion of the perimeter of the aperture exceeds π radians.
- 11. The system of claim 9, wherein at least one side of the optical isolator has an anti-reflective coating.
- 12. The system of claim 9, wherein the aperture is tapered from a first diameter to a second diameter, where the first diameter is greater than the second diameter, wherein the first diameter is located proximate to the optical energy source.

8

- 13. A system comprising:
- an optical energy source configured to produce an optical signal; and
- a sensor operatively coupled to the optical energy source, the sensor having an optical sensing portion and an aperture therein, the sensor configured to sense a first portion of the optical signal and to allow a second portion of the optical signal to pass through the aperture;
- a controller operatively coupled to the sensor;
- an optical isolator coupled to the sensor in the path of the optical signal, wherein the optical isolator is a linear polarizer having a quarter-wave plate coupled thereto; and
- a detection element located adjacent to the optical isolator in the path of the optical signal
- wherein the sensor is configured to produce a sensed signal by sensing the first portion of the optical signal
- wherein the sensor is configured to transmit the sensed signal to the controller and the controller is configured to control the optical energy source based upon the sensed signal.
- 14. The system of claim 13, wherein the aperture is circular in shape and the optical sensing portion surrounds at least a portion of the perimeter of the aperture.
- 15. The system of claim 13, wherein the sensor is a monitor photodiode.
- 16. The system of claim 13, wherein at least one side of the optical isolator has an anti-reflective coating.
- 17. The system of claim 13, wherein the aperture is tapered from a first diameter to a second diameter, where the first diameter is greater than the second diameter, wherein the first diameter is located proximate to the optical energy source.

* * * * *